

Appl. No. 10/034,021
Amdt. dated Nov. 25, 2003
Reply to Office Action of Aug. 29, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A nonwoven structure comprising superabsorbents and binder fibers made from a polymer having a melting point of at most 110 °C, wherein said structure has a center and an outer surface and wherein said structure has less than 5 times more oxidation at said outer surface than at said center.
2. (Original) The nonwoven structure of claim 1 wherein said structure has less than 3 times more oxidation at said outer surface than at said center.
3. (Cancelled)
4. (Currently amended) The nonwoven structure of claim [[3]] 1 further comprising natural fibers.
5. (Original) The nonwoven structure of claim 1 wherein said binder fiber polymer is selected from the group consisting of low density PE/polyethylene-polyvinylacetate block copolymer, LDPE/polyethylene glycol, PE/ polyacrylates, polyethylene-vinyl acetate copolymer, polyester, polycaprolactone, polyurethane, polyacrylates, polyethylene glycol (PEG), polyacrylamide (PAA), polyethylenimine (PEEM), polyvinyl acetate (PVAC), polyvinyl alcohol (PVA), polymethylacrylic acid- sodium salt (PMA-Na), polyacrylic acid sodium salt (PA-Na), and poly (styrene sulfonate-co-methyl acrylic acid) sodium salt (P (SS-co-MA)-Na).
6. (Original) The nonwoven structure of claim 1 wherein said binder fiber has a melting point of at most 90 °C.
7. (Original) The nonwoven structure of claim 1 wherein said binder fiber has a melting point of at most 80 °C.
8. (Original) The nonwoven structure of claim 1 wherein said binder fiber is a biconstituent fiber.
9. (Original) The nonwoven structure of claim 1 wherein said binder fiber further comprises an energy receptive additive having a dielectric loss of at least 0.5.
10. (Original) The nonwoven structure of claim 1 wherein said binder fiber further comprises an energy receptive additive having a dielectric loss of at least 1.

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11. (Original) The nonwoven structure of claim 1 wherein said binder fiber further comprises an energy receptive additive having a dielectric loss of at least 5.
12. (Currently amended) The nonwoven structure of claim 9 wherein said energy receptive additive is selected from the group consisting of carbon black, magnetite, silicon carbide, calcium chloride, zircon, ~~magnetite, silicon carbide, calcium chloride~~, alumina, magnesium oxide, and titanium dioxide.
13. (Original) The nonwoven structure of claim 12 wherein said energy receptive additive is present in an amount between 2 and 40 weight percent.
14. (Original) The nonwoven structure of claim 12 wherein said energy receptive additive is present in an amount between 5 and 15 weight percent.
15. (Original) The structure of claim 4 wherein said superabsorbent, natural fibers and binder fibers are homogeneously mixed.
16. (Original) The structure of claim 4 wherein said superabsorbent, natural fibers and binder fibers are heterogeneously mixed.
17. (Original) The structure of claim 16 wherein said binder fibers vary in concentration in an X - Y plane.
18. (Original) The structure of claim 16 wherein said binder fibers vary in concentration in a Z direction.
19. (Original) The structure of claim 4 having a density, wherein said density varies in an X - Y plane.
20. (Original) The structure of claim 4 having a density, wherein said density varies in a Z -direction.
21. (Original) The structure of claim 4 having a thickness, wherein said thickness varies in an X -Y plane.
22. (Original) The structure of claim 4 wherein said binder fiber varies in concentration in an X - Y plane.
23. (Original) The structure of claim 4 wherein said binder fiber varies in concentration in a Z - direction.
24. (Original) A nonwoven structure comprising superabsorbent in an amount of from 0 to 80 weight percent, natural fibers in an amount from about 5 to 98 weight percent and low melting point binder fibers in an amount of from about 1 to 60 weight percent, wherein said low

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melting point fiber has a melting point of at most 110 °C, said structure has a center and an outer surface, and wherein said structure has less than 5 times more oxidation at said outer surface than at said center.

25. (Original) The nonwoven structure of claim 24 wherein said superabsorbent is in a form selected from the group consisting of ribbons, particles, fibers, sheets and films.
26. (Original) The nonwoven structure of claim 24 wherein said natural fiber is selected from the group consisting of wool, cotton, flax, hemp and wood pulp.
27. (Original) A nonwoven structure comprising from about 4 to 12 weight percent of a binder fiber having a melting point of at most 110 °C, 30 to 70 weight percent superabsorbent and 30 to 70 weight percent natural fiber, wherein said structure has been subjected to microwave radiation to activate said binder fiber and bond said structure.
28. (Original) The nonwoven structure of claim 27 having a basis weight of about 30 - 2500 gsm.
29. (Original) The nonwoven structure of claim 28 wherein said binder fiber further comprises an energy receptive additive having a dielectric loss of at least 5.